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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/879,609	06/12/2001	Bernard Beier	600.1161	5275

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EXAMINER

NGHIEM, MICHAEL P

ART UNIT	PAPER NUMBER
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2863

DATE MAILED: 02/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/879,609

Applicant(s)

BEIER ET AL.

Examiner

Michael P Nghiem

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-16 and 18-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-11, 18-20, 25 and 26 is/are allowed.
- 6) ☒ Claim(s) 2, 4, 6-8, 12-16, 23 and 24 is/are rejected.
- 7) ☒ Claim(s) 3, 5, 21 and 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

The Amendment filed on November 27, 2002 has been acknowledged.

Withdrawal of Allowability

1. The indicated allowability of claim 2 is withdrawn in view of the newly discovered reference(s) to Hanson et al. (US 6,037,962). Rejections based on the newly cited reference(s) follow.

Claim Objections

2. Claims 3 and 21 are objected to because of the following informalities:

- all integers have a common denominator 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

"The detector" lacks antecedent basis.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 2, 4, 7, 15, 16, 23, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Hanson et al. (US 6,037,962).

Hanson et al. discloses all the claimed features of the invention including:

- a device for imaging printing plates (Fig. 2) comprising:

- an array (30) of n laser diodes which image n image points (Fig. 2), so that one laser diode of the array is allocated to each i -th point, with i being from $1, \dots, n$ (Fig. 2), the n image points (C, B) being separated by a spatial interval l between adjacent image points (Fig. 2), with a pitch distance p (p) of dots to be imaged by the array (Figs. 2, 3),

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the laser diodes being individually-drivable single stripe laser diodes (laser diodes, column 3, lines 4-5), wherein the spatial interval l between adjacent image points, measured in units of the pitch distance p of the dots, is an integral multiple m ($c \cdot (1 + qr)$ or $6qp$) of the pitch distance p between the dots (Abstract, lines 7-11);

- the spatial interval l of adjacent image points, measured in units of the pitch distance p of the dots, is smaller than the number n of the image points (interval between A,B and C,D of adjacent scan lines is smaller than number of image points A,B,C,D, Fig. 4b);

- a control unit (12), at least one of the laser diodes of the array being controlled by the control unit (Figs. 1, 2);

- imaging optics (34) including at least one reflective optical element (Fig. 2);

- imaging optics having micro-optical components (scan surfaces of 34).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hanson et al..

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Even though Hanson et al. does not disclose that the number of laser diodes in the array is between 10 and 100, Hanson et al. discloses that the number of laser diodes is greater or equal to 2 (column 1, lines 38-39).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Hanson et al. with a number of laser diodes between 10 and 100, as a matter of preferred choice, for the purpose of emitting multi-beam raster scan lines.

Claims 6 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hanson et al. in view of Sarraf (US 5,521,748).

Hanson et al. does not disclose the following limitations:

- imaging optics for correcting at least one of divergence and aberration;
- a laser controller being controlled as a function of the power output determined by the detector;
- at least one laser diode is a pulse controlled laser.

Nevertheless, Sarraf discloses imaging optics (18) for the purpose of de-magnifying image elements (column 4, lines 19-21), a laser controller (column 3, lines 20-22) for the purpose of controlling activation of the light elements, and a pulse controlled laser (column 2, lines 31-33) for the purpose of reducing average power density.

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Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Hanson et al. with imaging optics, a laser controller, and a pulse controlled laser for the purposes of de-magnifying image elements, controlling activation of the light elements, and reducing average power density.

Allowable Subject Matter

6. Claims 3 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims 21 and 22 would be allowable if rewritten to overcome the objection set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

8. Claims 9-11, 18-20, 25, and 26 are allowed.

Reasons For Allowance

9. The combination or method as claimed wherein the integral multiple m and the number n of image points have no common denominator (claim 3) or the

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multiple m and the number n of the image points are prime numbers (claim 5) or the laser diodes are spaced apart on the array by a distance of between 100 and 1000 micrometers, and a width of emitter surfaces of the laser diodes is less than 10 micrometers (claims 9, 25) or repeating the displacement steps, an amount of the second specific displacement being greater than the spatial interval l of adjacent image points (claim 18) is not disclosed, suggested, or made obvious by the prior art of record.

Response to Arguments

10. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

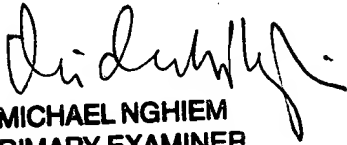
Contact Information

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Nghiem whose telephone number is (703) 306-3445. The examiner can normally be reached on M-H from 6:30AM – 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached at (703) 308-3126. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-5841 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

A handwritten signature in black ink, appearing to read "Michael Nghiem", written in a cursive style.

MICHAEL NGHIEM
PRIMARY EXAMINER

Michael Nghiem

February 21, 2003